

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 - 54 (Cancelled)

55. (New) A stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stent having a distal end, a proximal end, and a length extending from the distal end to the proximal end, the stabilizer comprising a non-inflatable inner core and one or more members for engaging the stent inner periphery along the length of the stent.

56. (New) The stabilizer of claim 55, wherein the one or more members for engaging the stent inner periphery comprises a plurality of radial protuberances that protrude from the inner core and are axially distributed along the stent-underlying portion of the stabilizer along the length of the stent.

57. (New) The stabilizer of claim 56, wherein the radial protuberances comprise rings about the inner core.

58. (New) The stabilizer of claim 56, wherein each radial protuberance comprises a partial ring segment covering less than a full periphery about an axial portion of the inner core.

59. (New) The stabilizer of claim 58, comprising a circumferentially or helically distributed plurality of partial ring segments that collectively define a broken ring or broken helix about the inner core.

60. (New) The stabilizer of claim 58, wherein the partial ring segment covers less than half of the full periphery.

61. (New) The stabilizer of claim 56, wherein the plurality of radial protuberances are positioned peripherally about the stabilizer such that the stabilizer engages the inner periphery of the stent in a plurality of peripheral locations.

62. (New) The stabilizer of claim 56, wherein the radial protuberances are adapted to frictionally engage the stent inner periphery.

63. (New) The stabilizer of claim 56, wherein each of the plurality of radial protuberances comprises a structure selected from the group consisting of at least one of: a barb, a bump, a locking ring, and an inflatable knob.

64. (New) The stabilizer of claim 56, wherein the protuberances are axially and peripherally spaced in a helical pattern along the stabilizer.

65. (New) The stabilizer of claim 55, wherein one or more members for engaging the stent inner periphery comprises an outer surface of the stabilizer adapted to frictionally engage the stent inner periphery along the length of the stent.

66. (New) The stabilizer of claim 65, wherein the stabilizer outer surface comprises a higher coefficient of static friction than both a coefficient of static friction and a coefficient of dynamic friction of the sheath.

67. (New) The stabilizer of claim 65, wherein the stabilizer outer surface comprises a continuous member that extends from the distal end to the proximal end of the stent in contact with the inner periphery of the stent.

68. (New) The stabilizer of claim 65, wherein the stabilizer comprises an inner core and the outer surface comprises a covering over the inner core.

69. (New) The stabilizer of claim 65, wherein the covering comprises a coating on the inner core.

70. (New) The stabilizer of claim 65, wherein the covering comprises a sleeve affixed to the inner core.

71. (New) The stabilizer of claim 68, wherein the stabilizer comprises a plurality of discrete rings of the covering affixed to the inner core and a plurality of uncovered portions of the inner core spaced between the rings.

72. (New) A stent delivery system comprising:

a) stent comprising a proximal end, a distal end, a length between the proximal end and the distal end, and an inner periphery that defines an interior space, the stent adapted to

be radially compressed and loaded within the delivery system for introduction into the body lumen and to be expanded for deployment within the body lumen;

b) a sheath overlying the compressed stent during introduction of the stent within the body lumen;

c) a stabilizer having a stent-underlying portion adapted to be disposed within the interior space of the stent, the stabilizer comprising a non-inflatable inner core and one or more members for engaging the stent inner periphery along the length of the stent.

73. (New) The stent delivery system of claim 72, wherein the stabilizer is adapted to hold the stent in a desired position when the sheath is moved relative to the stent.

74. (New) The stent delivery system of claim 72 wherein the stabilizer is adapted to hold the stent in the desired position when the sheath is retracted to deploy the stent.

75. (New) The stent delivery system of claim 72, wherein the stabilizer is adapted to hold the stent in the desired position when the sheath is advanced to recapture a partially-deployed stent.

76. (New) The stent delivery system of claim 72, wherein the one or more members for engaging the stent inner periphery comprises a plurality of radial protuberances that protrude from the inner core and are axially distributed along the stent-underlying portion from the distal end to the proximal end of the stent.

77. (New) The stent delivery system of claim 76, wherein the stent comprises a framework having one or more areas of open space and at least one of the plurality of radial protuberances penetrates the open space.

78. (New) The stent delivery system of claim 76, wherein the plurality of protuberances are defined by an imprint of the stent inner periphery on an outer surface of the stabilizer.

79. (New) The stent delivery system of claim 76, wherein the imprint comprises a thermal imprint.

80. (New) The stent delivery system of claim 76, wherein the imprint comprises an injection molded imprint.

81. (New) A stent delivery system of claim 72, wherein the one or more members for engaging the stent inner periphery comprises parts of an outer surface of the stabilizer adapted to frictionally engage the stent inner periphery along the length of the stent.

82. (New) A method of manufacturing a stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stabilizer comprising an inner core and one or more protuberances that protrude from the inner core for engaging the stent inner periphery, the method comprising forming each protuberance via the steps of:

- a) providing a radially protruding ring around an entire periphery of an axial portion of the inner core;
- b) removing a peripheral section of the ring, leaving the protuberance.

83. (New) The method of claim 82, wherein step (b) comprises removing more than half of the ring.

84. (New) The method of claim 82, comprising forming the one or more protuberances in a pattern of a broken ring or broken helix about the inner core.

85. (New) A stabilizer for deployment of a stent in a distal location inside a body lumen from a proximal access location outside the body, the stent having a distal end and a proximal end, the stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of the stent, the stabilizer comprising a non-inflatable inner core having a first diameter underlying the stent, a proximal shoulder not underlying the stent located adjacent the proximal end of the stent and having a second diameter, and at least one distal protuberance underlying the stent and protruding from the inner core for engaging the stent inner periphery at a distal end of the stent.

86. (New) The stabilizer of claim 85 further comprising a plurality of intermediate protuberances distributed between the proximal shoulder and the distal protuberance.

87. (New) A stent delivery system for deployment of a stent in a distal location inside a body lumen from a proximal access location outside the body, the system comprising:

- a) a stent comprising a proximal end, a distal end, and an inner periphery that defines an interior space, the stent adapted to be radially compressed and loaded within the delivery system for introduction into the body lumen and to be expanded for deployment within the body lumen;
- b) a sheath overlying the compressed stent during introduction of the stent within the body lumen;
- c) a stabilizer having a stent-underlying portion adapted to be disposed within the interior space of the stent, the stabilizer comprising a non-inflatable inner core having a first diameter underlying the stent, a proximal shoulder not underlying the stent located adjacent the proximal end of the stent and having a second diameter, and at least one member underlying the stent and protruding from the inner core for engaging the stent inner periphery at a distal end of the stent.

88. (New) The stent delivery system of claim 87, wherein the stabilizer further comprises a plurality of intermediate protuberances distributed between the proximal shoulder and the distal protuberance.